IN THE CLAIMS

1. (currently amended) A rotating machine comprising:

a vertically-mounted shaft supported in a main housing, said shaft being normally supported by bearings within said housing and said shaft having an upper end extending through an upper end of said main housing;

a movable shaft support for relieving said bearings of stress during periods of non use of said rotating machine, said shaft support providing an upward force on said shaft.

2. (Original) The rotating machine of Claim 1, wherein said rotating machine is a pump.

3. (Original) The rotating machine of Claim 1, wherein said shaft support comprises a pneumatic piston which converts fluid pressure into a force exerted upward against said upper end of said shaft.

4. (Original) The rotating machine of Claim 1, wherein said upper end of said shaft is threaded and said shaft support comprises a platform having an opening through which said upper end passes and a nut tightened over said upper end and onto said platform, said nut thereby imparting an upward force on said upper end of said shaft.

5. (Currently amended) A pump comprising:

a pump housing, said pump housing being oriented vertically;

a shaft, said shaft being supported for rotation on bearings within said pump housing;

a movable shaft support for selectively relieving said bearings of stress during periods of non-use of said pump, said shaft support providing an upward force on said shaft.

6. (Original) The pump of Claim 5, wherein said shaft support provides an upward force on an upper end of said shaft.

7. (Original) The pump of Claim 6, wherein said upper end of said shaft extends through an upper end of said pump housing.

8. (Original) The pump of Claim 7, wherein said upper end of said shaft is threaded and said shaft support comprises a platform having a hole through which said upper end of said shaft passes and a nut tightened over said upper end of said shaft and onto said platform, said nut thereby imparting an upward force on said upper end of said shaft.

9. (Original) The pump of Claim 5, wherein said shaft support comprises a pneumatic piston which converts fluid pressure into a force exerted upward against an upper end of said shaft.

10. (Original) The pump of Claim 9, further comprising a control system, wherein the control system comprises a gas source in fluid communication with the pneumatic piston and an actuatable valve intermediate the gas source and the pneumatic piston.

11. (Original) The pump of Claim 9, wherein said piston is coaxially disposed over said upper end of said shaft, said piston having a tubular stem extending therefrom, said tubular stem engaging said upper end of said shaft when a pressure space directly beneath said piston is pressurized relative to a pressure space over said piston, said piston and said stem thereby imparting an upward force against said upper end of said shaft.

12. (Original) The pump of Claim 10, further comprising a vent in fluid communication with a space defined by a wall of the support system in contact with the pneumatic piston.

13-17. (Canceled)

18. (Currently amended) A method of supporting a pump shaft during periods of non-operation of a pump, said method comprising:

selectively exerting an upward force against said shaft during said periods of non use thereby off-loading bearings normally supportive of said shaft.

19. (Original) The method of Claim 18, wherein said step of exerting an upward force comprises charging a pressure space below a pneumatic piston with pressurized fluid.

20. (Original) The method of Claim 18, wherein said step of exerting an upward force comprises tightening a nut over a threaded upper end of said shaft and against a platform supported above said pump.